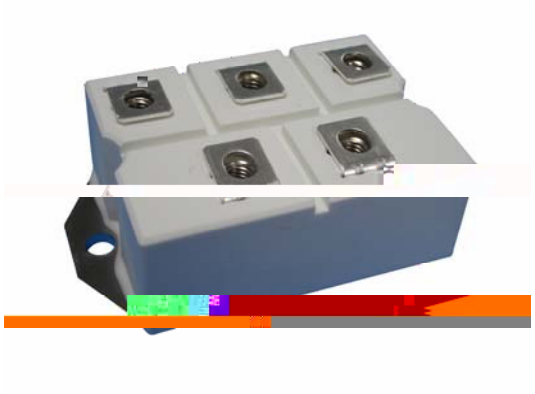
MD280S-M3

RoHS COMPLIANT



Glass Passivated Three Phase Rectifier Bridge

V_{RRM} 800 to 1800V
I_D 280 A

Applications

Three phase rectifiers for power supplies
Rectifiers for DC motor field supplies

Circuit

Features

Three phase bridge rectifier
Blocking voltage:800 to 1800V
Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
Glass passivated chip

Module Type

TYPE	V_{RRM}	V_{RSM}
MD280S08M3	800V	900V
MD280S12M3	1200V	1300V
MD280S16M3	1600V	1700V
MD280S18M3	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_D	Three phase, full wave Tc=100	280	A
I_{FSM}	t=10mS Tvj =45	2550	A
i^2t	t=10mS Tvj =45	32500	A^2s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	
Tstg		-40 to +125	
Mt	To terminals(M6)	5±15%	Nm
Ms	To heat sink(M6)	5±15%	Nm
Weight	Module (Approximately)	230	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.3	/W
Rth(c-s)	Module (Approximately)	0.02	/W

Electrical Characteristics

Performance Curves

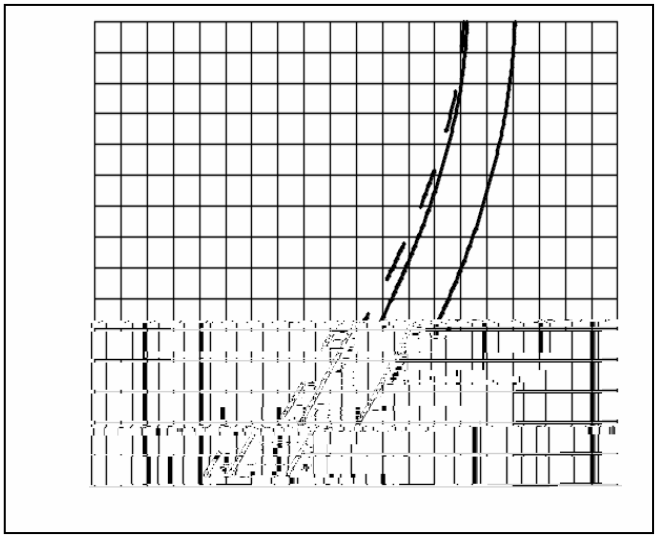


Fig1. Forward Characteristics

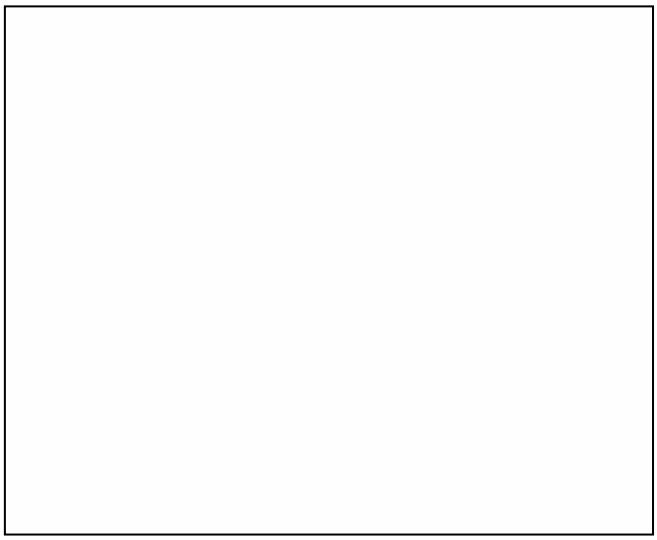


Fig2. Power dissipation

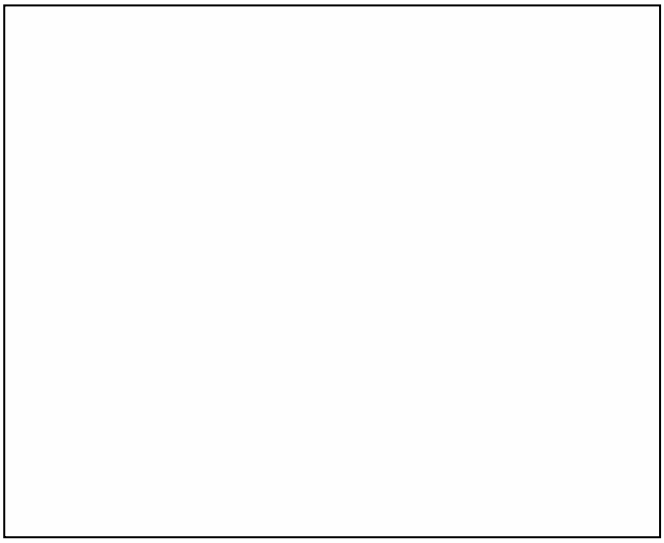


Fig3. Transient thermal impedance

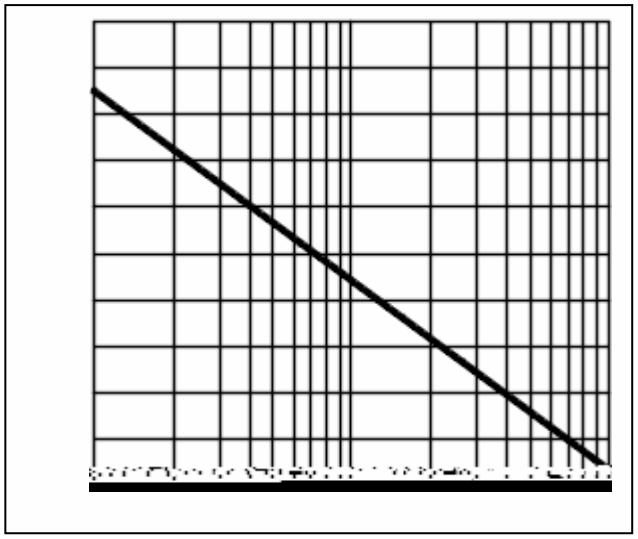
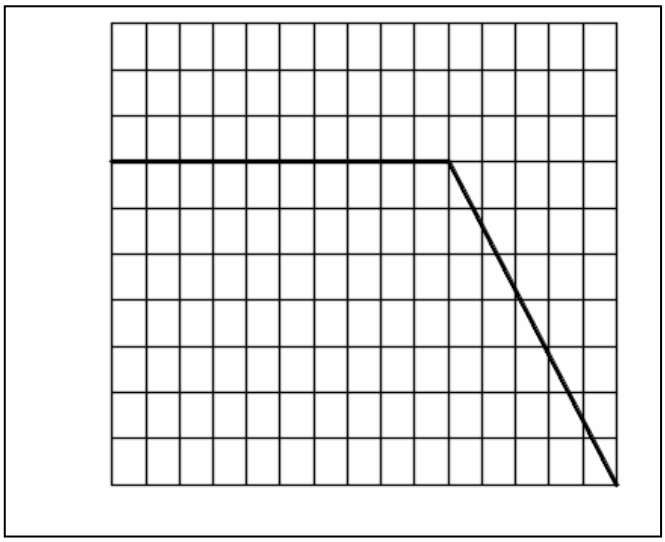


Fig4. Max Non-Repetitive Forward Surge Current



Package Outline Information

CASE M3